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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/315,390	05/20/1999	STEPHEN CRANE	9567.4807	6469

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EXAMINER

ROCHE, LEANNA M

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 01/15/2002

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/315,390

Applicant(s)

CRANE, STEPHEN

Examiner

Leanna Roche

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,9-15,23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,9-11,13-15,23 and 24 is/are rejected.
- 7) ☒ Claim(s) 3 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 25 October 2001 is: a) ☐ approved b) ☒ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendments filed on October 25, 2001 have been entered and carefully considered. Claims 6-8 have been cancelled. Claims 23 and 24 have been added. Claims 16-22 stand as non-elected. Claims 1-5, 9-15 and 23-24 are pending in this application.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

Drawings

4. The corrected or substitute drawings were received on October 25, 2001. These drawings are not acceptable.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Figures 7-10 do not show a foam core 130. Figure 16 does not show a layer combination 373. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Figures 4-10 show reference number 126, but the specification does not include a description of these features. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
7. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "120" and "230" have both been used to designate the composite structure in Figure 6. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 2 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuwazuru et al. (USPN 4579774).

Kuwazuru is directed to a foamed resin sheet with thermoplastic resin layers laminated to both surfaces of the foamed core (Abstract). More specifically, Kuwazuru discloses a foam core comprised of a copolymer of styrene and acrylates (Column 2 lines 1-35) with films of the same material bonded to each face of the foam core (Column 3 lines 15-24). This reads on Applicant's claimed inner and outer acrylic layers attached to a least a portion of an acrylic foam core. Kuwazuru is directed to a lining material for the ceilings of automobiles. This reads on a composite for use in a camper top.

10. Claims 1, 2 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Steward et al. (USPN 4211590) or Stamper et al. (USPN 4256797).

Steward and Stamper both disclose multiplayer composites comprised of outer and inner layers of styrene-acrylic and a foam core of styrene-acrylic. This reads on Applicant's outer layer of acrylic and acrylic foam core. Steward and Stamper are both directed to use in vehicle trim. This reads on use in a camper top.

11. Claims 1, 4, 5 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Akimoto et al. (USPN 4986860).

Akimoto is directed to a lower foamed sheet on which is laminated a thermoplastic resin surface layer (Column 2 lines 34-39). The lower layer foamed sheet

may be comprised of a copolymer of vinyl chloride and acrylic acid (Column 3 lines 14-25). The surface layer is comprised of vinyl chloride modified with an acrylic rubber (Column 5 lines 3-15). The lower layer foamed sheet of Akimoto reads on Applicant's acrylic or acrylic-polyvinylchloride foam core, and the surface layer of Akimoto reads on Applicant's acrylic or acrylic-polyvinylchloride outer layer. Akimoto is directed to use in vehicle trim. This reads on use in a camper top.

12. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Honda et al. (USPN 4278728) substantially as set forth in Paper No. 9, paragraph 12.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto et al. (USPN 4986860) as applied to claim 1 above, and further in view of Steward et al. (USPN 4211590) or Stamper et al. (USPN 4256797).

Akimoto discloses a vehicle trim material without an additional inner acrylic layer attached to the foam core. Steward and Stamper both disclose vehicle trim panels with inner and outer layers attached to a foam core. The additional inner layer would improve the strength of the trim panel and would improve the aesthetic appeal of the panel. Therefore, it would have been obvious to the skilled artisan at the time this

invention was made to have combined the teachings of Akimoto and Steward or Stamper, motivated by the desire to produce a composite vehicle trim material with increased strength and improved aesthetic appeal.

15. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steward et al. (USPN 4211590) or Stamper et al. (USPN 4256797) as applied to claims 1 and 2 above, and further in view of Fay (USPN 4053545).

Both Steward and Stamper disclose the use of an "appropriate" adhesive to produce a tenacious bond of the outer film layer to the foam core. However, neither Steward nor Stamper specifically indicate the use of an acrylic adhesive. Fay discloses the use of an acrylic adhesive to firmly bond an acrylic containing sheet to a styrene containing foam. The acrylic adhesive of Fay sets by the heat produced by the foam formation, which allows for reduced production steps. It would have been obvious to the skilled artisan at the time this invention was made to use an acrylic adhesive as shown by Fay in the composite of Steward or Stamper, motivated by the desire to produce a firm bond between the acrylic films and foam core of the composite while minimizing additional processing steps.

16. Claims 9 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto et al. (USPN 4986860) as applied to claim 1 above, and further in view of Fay (USPN 4053545).

Akimoto discloses the use of an adhesive to bond the surface layer to the lower foam layer. Akimoto does not, however, specifically disclose the use of an acrylic adhesive. Fay discloses the use of an acrylic adhesive to firmly bond an acrylic

containing sheet to a styrene containing foam. The acrylic adhesive of Fay sets by the heat produced by the foam formation, which allows for reduced production steps. It would have been obvious to the skilled artisan at the time this invention was made to use an acrylic adhesive as shown by Fay in the composite of Akimoto, motivated by the desire to produce a firm bond between the acrylic films and foam core of the composite while minimizing additional processing steps.

17. Claims 10, 11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akimoto et al. (USPN 4986860) in view of Steward et al. (USPN 4211590) or Stamper et al. (USPN 4256797) as applied to claim 2 above, and further in view of Fay (USPN 4053545).

Akimoto, Steward and Stamper all disclose the use of adhesive to secure the outer acrylic films to the acrylic foam core, but they do not specifically disclose the use of an acrylic adhesive. Fay discloses the use of an acrylic adhesive to firmly bond an acrylic containing sheet to a styrene containing foam. The acrylic adhesive of Fay sets by the heat produced by the foam formation, which allows for reduced production steps. It would have been obvious to the skilled artisan at the time this invention was made to use an acrylic adhesive as shown by Fay in the composite of Akimoto in view of Steward or Stamper, motivated by the desire to produce a firm bond between the acrylic films and foam core of the composite while minimizing additional processing steps.

Allowable Subject Matter

18. Claims 3 and 12 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

19. Applicant's amendments to claims 5, 14 and 15 are sufficient to overcome the previous objection in Paper No. 9, paragraph 7. Applicant's amendment to page 17 of the specification is sufficient to overcome the previous objection in Paper No. 9, paragraph 6. The proposed drawing corrections are sufficient to overcome the previous objection in Paper No. 9, paragraph 3, **only**. Applicant's arguments with regard to the rejection of claims 3 and 4 under 35 USC 102(b) over Kuwazuru, the rejection of claims 12 and 13 under 35 USC 103(a) over Steward in view of Kuwazuru, and the rejection of claim 14 under 35 USC 103(a) over Steward in view of Honda are sufficient to overcome these previous rejections set forth in Paper No. 9.

20. Applicant's arguments filed October 25, 2001 have been fully considered but they are not persuasive. Additionally, Applicant's arguments with respect to claims 1, 2, 4, 5, 9-11, 13-15, and newly added claims 23 and 42 have been considered but are moot in view of the new ground(s) of rejection.

21. The proposed drawing corrections are not sufficient to overcome the previous rejections in Paper No. 9, paragraphs 4 and 5. Thus, these objections have been renewed.

22. Applicant's arguments with regard to Steward are not found persuasive because Steward was not relied upon, in Paper No. 9 and presently, to show an outer layer of acrylic polyvinylchloride and a foam core of acrylic polyvinylchloride, nor an outer layer of acrylic-ABS.

23. With regard to Applicant's arguments regarding the clarity of the rejections of claims 1 and 6 over Akimoto et al. in Paper No. 9, the examiner apologizes for the confusion with regards to the typographical error. It is believed that the new rejection set forth above clearly shows the rejection under 35 USC 102(b) over Akimoto et al.

24. With regard to Applicant's argument that the Akimoto reference specifically teaches the use of styrene, this argument is not found persuasive. Nowhere in any of Applicant's claims is the presence of styrene excluded, therefore, Akimoto reads on Applicant's claims.

25. In response to applicant's argument that the vehicle trim material of Akimoto is nonanalogous art, it is noted that **only** claim 24 requires that the composite material be used in a boat hull, camper top or cooler. Therefore, claims 1-15 and 23 do not require specific use as boat hull, decks, camper tops or coolers or the like. Additionally, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, it is the examiner's belief that a camper is a vehicle and that a camper top can be

considered a trim material. Therefore, Akimoto reads on Applicant's composite material.

26. Applicant's arguments with regard to Honda et al. fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from Honda et al. Applicant has failed to disclose any specific misunderstanding with regard to the rejection of novelty over Honda et al. The rejection set forth in Paper No. 9, paragraph 12, clearly states the views of the Office with regard to the applicability of Honda et al. to Applicant's present claims. Therefore, the rejection under 35 USC 102(b) over Honda et al. stands.

27. In response to Applicant's argument that the Steward reference does not specifically disclose an acrylic adhesive, Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

28. In response to applicant's argument that there is no suggestion to combine Akimoto and Steward, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Steward and Akimoto are directed to vehicle trim materials comprised of outer layers containing acrylic adhered with an adhesive to a foam layer containing acrylic.

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As stated above, it would have been obvious to the skilled artisan at the time this invention was made to have combined the teachings of Akimoto and Steward or Stamper, motivated by the desire to produce a composite vehicle trim material with increased strength and improved aesthetic appeal. Therefore, the examiner has clearly established obvious reasons to combine these references and Applicant's arguments are not found persuasive.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Good (USPN 3936565) for composites used in camper tops, boat hulls and containers which has acrylic-PVC outer layers.

Contact Information

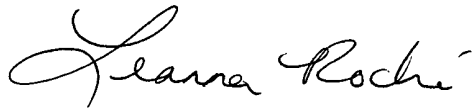
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leanna Roche whose telephone number is 703-308-6549. The examiner can normally be reached on Monday through Friday from 8:30 am to 6:00 pm (with alternate Mondays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 703-308-1261. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

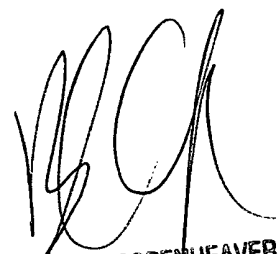
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



lmr
January 12, 2002



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